

II. REMARKS

A. Introduction

Applicants submit this Response in a bona fide attempt to (i) advance the prosecution of this case, (ii) answer each and every ground of objection and rejection as set forth by the Examiner, (iii) place the claims in a condition for allowance, and (iv) place the case in better condition for consideration on appeal. Applicants respectfully request reexamination and reconsideration of the above referenced patent application in view of this Response.

As indicated above, Claims 1 – 6 and 8 - 20 have been amended and Claims 5, 7 and 20 have been canceled. New Claims 21 and 22 have also been added.

Applicants respectfully submit that the noted amendments merely make explicit that which was (and is) disclosed or implicit in the original disclosure. The amendments thus add nothing that would not be reasonably apparent to a person of ordinary skill in the art to which the invention pertains.

B. Response to Rejections

The Examiner has rejected Claims 1-20 “under 35 U.S.C. § 102(e) as being anticipated by Humphrey (‘239).” The Examiner contends:

Humphrey teaches systems, methods and devices for stimulating and regulating body organ function, particularly in relation to paralyzed muscles of an arm (Figures 1, 10, 11). The method includes collecting waveforms that are representative of waveforms naturally occurring within a body from a body; at least temporarily storing the collected waveforms in a computer processor (9); and transmitting one or more collected waveforms to the body organ to stimulate organ function. The collected waveforms are transformed from analog signals into a readable digital format for the computer processor. The collected waveforms are stored according to the function performed by the waveforms. The collected waveforms are transmitted to the paralyzed muscles through a stimulation controller that converts the digital signals to analog signals.

The transmitting means includes a digital to analog converter and the applying means can include a body electrode applied to the paralyzed muscles of the arm.

It is well established that a rejection for anticipation under § 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. *See In re Paulsen*, 30 F.3d 1475, 1478-79, 31 U.S.P.Q. 2d 1671, 1673 (Fed. Cir. 1994); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 18 U.S.P.Q. 2d 1001 (Fed. Cir. 1991). *See also American Permahedge, Inc. v. Barcana, Inc.*, 857 F. Supp. 308, 32 U.S.P.Q. 2d 1801, 1807-08 (S.D. NY 1994) (“Prior art anticipates an invention ... if a single prior art reference contains each and every element of the patent at issue, operating in the same fashion to perform the identical function as the patent product. ... Thus, any degree of physical difference between the patented product and the prior art, *no matter how slight*, defeats the claim of anticipation.”); *Transco Ex parte Levy*, 17 U.S.P.Q. 2d 1461, 1462 (Bd. Pat. App. & Int’l 1990) (“[I]t is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference”.)

Applicants respectfully submit that the claimed invention is *not* anticipated by Humphrey. Indeed, as discussed in detail below, Humphrey simply does not disclose “each and every limitation of the claimed invention.”

Independent Claims 1 and 16, as amended, specifically include the steps of (i) collecting waveform signals representative of waveform signals generated in the body and carried by neurons in the body, the waveforms being operative in the regulation of body organ functioning, and (ii) transmitting a first waveform signal proximate a desired (or first) body organ to regulate organ function, *the first waveform signal including at least one waveform that substantially corresponds to at least one of the collected waveform signals and is operative in the regulation of the first body organ*.

The apparatus recited in independent Claim 6, as amended, includes (i) a source of collected waveform signals that are representative of waveforms naturally occurring within a body and are indicative of body organ functioning, (ii) means for selecting at least a first waveform from the collected waveforms, *the first waveform substantially corresponding to at least one of the collected waveforms and being operative to regulate a first (or desired) body organ*, and (iii) means adapted to be in communication with the body for transmitting the first waveform proximate the first body organ to regulate the function of the first body organ.

New Claims 21 and 22 additional provide that the first waveform signal is transmitted to the nervous system to regulate a target body organ.

Humphrey is thus distinguishable in a number of significant respects. First, Humphrey does not teach or even suggest transmitting (or broadcasting) waveforms or waveform signals that *include at least one waveform that substantially corresponds to a waveform that is produced by the body and is operative in the regulation of a target body organ*. Humphrey's collected waveforms are subjected to considerable processing, particularly, the "second stage signal processing" and, hence, modification. The resultant "signals" would thus not substantially correspond to a waveform (or waveform signal) produced by and collected from the body or include a signal representative of a signal produced by the body.

Second, Humphrey does not teach or even suggest transmitting waveforms or waveform signals that are representative of waveforms that are produced by the body *to (or through) the nervous system* to regulate the function of a target body organ. The "signals" transmitted by Humphrey are either directed to an external, mechanical device (e.g., prosthetic device) or directly into a target muscle.

Humphrey thus does not disclose "each and every limitation of the claimed invention." Applicants accordingly respectfully request that the rejection under 35 U.S.C. § 102 be withdrawn.

III. CONCLUSION

Applicants having answered each and every ground of objection and rejection as set forth by the Examiner, and having added no new matter, believe that this response clearly overcomes the reference of record, and now submit that all claims in the above-referenced patent application are in condition for allowance and the same is respectfully solicited.

If the Examiner has any further questions or comments, Applicants invite the Examiner to contact their Attorneys of record at the telephone number below to expedite prosecution of the application.

Respectfully submitted,

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